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ABSTRACT

This booklet is intended to aid driver education instructors and supervisors to develop a program of driver education for physically or mentally handicapped persons. The guide is organized in five sections. The first section introduces the concept of driver education for the handicapped, and relates its history, philosophy, objectives for a program, psychological factors affecting driving behavior in the disabled, and numbers of children with various types of disabilities in the United States. In the second section, the organization and administration of driver education programs in Oklahoma is explained, including reimbursement for school districts, special equipment needed for the disabled, and processes for identifying special students. The third section of the booklet covers instructional planning, including special tasks and techniques (behavioral objectives), techniques for assisting the mentally handicapped, and case records of driver instruction of a paraplegic and a mentally retarded student. The fourth and fifth sections discuss evaluation of students after they have passed their driver's license examination and provide a bibliography of print and audiovisual materials. (KC)

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OKLAHOMA CURRICULUM GUIDE FOR TEACHING DRIVER EDUCATION TO THE HANDICAPPED

Prepared by
The State Committee on
DRIVER EDUCATION FOR THE HANDICAPPED

DRIVER, SAFETY AND HEALTH EDUCATION SECTION
Henry Vaughan, Administrator
Travis Tice, Assistant Administrator
in cooperation with

OKLAHOMA CURRICULUM IMPROVEMENT COMMISSION
William D. Carr, Chairman
under the auspices
of the

CURRICULUM SECTION
Clifford Wright, Administrator

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OKLAHOMA STATE DEPARTMENT OF EDUCATION
Leslie Fisher, Superintendent
1973

CE 029 404

FOREWORD

The development of safe driving habits among all American motorists is of principle concern to the Driver Educator. The most effective means to this end is embodied in the expansion and improvement of programs in traffic safety education and training.

During the past decade, there has been an increasing interest and investment in providing services for the handicapped person throughout the United States. Providing education opportunities for all children is a first duty of State government. In recent years this doctrine has been expanded, and properly so, to previously neglected areas of handicapped and disadvantaged children. Prominent recognition of Driver Education appears in the standards developed in connection with the Federal Highway Safety Act of 1966. This federal standard provides that each State in cooperation with its political subdivisions, shall have a Driver Education and training program that is available to all youths of licensing age (including handicapped).

Those school districts which would like to institute new Driver Education programs for these children are being faced with a multitude of problems, the most urgent of which is the selection, training and supervision of the teachers. From these problems arise the need for education and training programs for the teacher of handicapped students in Driver Education.

This guide is not intended as a directive to any person or school but is meant to serve as a pattern from which a program of Driver Education for the handicapped may evolve. It should also serve to bring about some uniformity in these programs over the entire State.

Leslie Fisher
State Superintendent

ACKNOWLEDGMENT

Committee for Development of a Curriculum Guide
For Teaching Driver Education to Handicapped Pupils

Mrs. Hattie James
Oklahoma City Public Schools

Mr. Richard Kisner
Tulsa Public Schools

Mr. Orel Peak
Principal
Carver Center
Oklahoma City Public Schools

Mr. Bill Pence
Governor's Highway Safety Program

Miss Margaret Wright
Governor's Highway Safety Program

Dr. Milton D. Rhoads
Director
Southwest Center for Safety
Oklahoma State University

Mr. Ed Fee
Chairman and Instructor
Driver Education
Bartlesville Public Schools

Mr. William E. Hopper
Teacher
Driver Education
Tulsa Memorial High School

Mrs. Mary F. Robertson
Coordinator
Special Education Section
State Department of Education

Mr. Bill Starr
Coordinator
Driver, Safety and Health Education
State Department of Education

Mrs. Peggy Gill
Informational Representative
Communications Section
State Department of Education

Dr. Charles Sandmann
Educational Planning
State Department of Education

Mr. Bryce Wilde
Connors State College

Mr. Gaines Ballew
Coordinator
Driver, Safety and Health Education
State Department of Education

Mr. Don Rushing
Coordinator
Special Education Section
State Department of Education

Mr. Nevin Starkey
Coordinator
Driver, Safety and Health Education
State Department of Education

Mr. Eli Mize
Coordinator
Driver, Safety and Health Education
State Department of Education

Mr. Travis Tice
Assistant Administrator
Driver, Safety and Health Education
State Department of Education

Miss Jozell Baker
Coordinator
Driver, Safety and Health Education
State Department of Education

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I. INTRODUCTION

Roads, automobiles, and education programs are designed for so-called "normal" people, with an average set of mental and physical faculties. Deviations from this norm may limit a person's ability to operate a "stock" automobile on the average road, or to receive proper instruction for the safer and more expedient methods of this operation. Many of these deviations may also severely hamper the individual's mobility by other means, making him entirely dependent on someone else for transportation. Others may be limited only to the extent that they are unable to participate in programs of education for safety and mobility.

Adaptation of these variables to the individual's needs may give him an independence and the ability to realize a personal potential that would not be possible otherwise. Roads are currently undergoing some adaptation by the new non-lingual marking system. Controls for automobiles are being manufactured to permit the operator to control his vehicle by the physical faculties he does possess. These put a two-fold responsibility on education agencies to provide the instruction necessary to the physical adaptations and to assist the pupil in isolating his problems and in formulating plans for reaching acceptable solutions.

A study in Los Angeles revealed that after special instruction in Driver Education,[1] 69% of all students tested were licensed to drive. These were severely handicapped people. Assistance in gaining a license to drive gave them a new mobility - new horizons - opened doors that had apparently been forever closed. By achieving this mobility, many of these students may obtain fiscal independence as opposed to remaining a social responsibility for the remainder of a lifetime.

Mental handicaps do not often deter the physical operations necessary for driving. They do, however, endanger the lives of the student, his passengers, and other users of the roadway. Special assistance and instruction are often necessary to remove this obstruction to normal operation.

[1]A Study to Demonstrate the Practicability and Methodology of Teaching Driving to the Physically Disabled High School Student, Joseph Reynolds, Los Angeles, California, June 1968.

HISTORY

Since the development of the automobile no doubt many times the needs of individuals have spawned various devices for braking, accelerating, steering, and dimming lights. With the appearance of automatic transmissions and power equipment the problems of creating adaptive devices to assist the handicapped have diminished.

Perhaps the mass infusion of hand controlled driving emerged historically in the post World War II era as a part of the rehabilitation work with Veterans who as a result of injury needed special aids to drive. It was recognized that rehabilitative considerations should include provisions for learning to drive — not only as a means for attending daily needs and transportation to work but also as a means of fostering liberation from psychic feelings of limitation and dependency.

PHILOSOPHY

In ancient times many imperfect babies were abandoned to die. History reveals that many thousands of nervous and mental patients were tortured in the belief that they were possessed of "devils." Christianity brought an end to these practices although neglect was in evidence throughout the Middle Ages. It was not until the Sixteenth Century that the handicapped were considered worthy of special attention in the Old World, and not until the early Nineteenth Century were provisions made for their education in the United States.

One of the myths concerning disabled drivers is that they must be hazardous because of their disability and gadgetry. A twenty-five year follow-up report on 4,000 handicapped drivers in Connecticut revealed " . . . not one of these drivers had been guilty of a serious or dangerous violation, such as speeding, reckless driving, or driving while intoxicated. Not one of these drivers was involved as a driver in a fatal accident. Not one of these drivers had any traffic troubles because of his or her physical handicap."[2]

[2] Schwerhert Harry A., Jr., "Transportation for The Disabled," *Paraplegic News*, January 1970.

Another survey[3] found ten of our Nation's thirteen largest insurance companies who viewed the handicapped driver as a better risk than the able-bodied because of his extra care and caution. Most states use the same license examination for the handicapped and the able-bodied.

Education has lagged greatly in recognizing the rights of the exceptional groups. Recent findings show that it is not only socially sound, but good economic practice to provide developmental and corrective training for the handicapped youth. Money spent to help the handicapped individual make a healthful adjustment and thus open the way to a purposeful and useful life, is small when compared with the amount spent to care for the helpless, the neglected, and the incapacitated. In its broadest implications, as now conceived, education is responsible for promoting individual worth and competence in all their various phases, but always within the limitations that they must contribute to the common good of both individual and society.

OBJECTIVES

The objectives for such a program could philosophically be viewed from two perspectives: 1) Social 2) Personal.

From the social point of view a statement in the foreword section of the Oklahoma Drivers Manual sets forth the unquestionable position:

"The privilege to operate a vehicle in Oklahoma is granted only after you qualify by examination, conducted by trained examiners of the Department of Public Safety. This examination is a series of tests, including vision, road signs and rules of the road, plus your ability to safely and skillfully operate a motor vehicle in traffic."

From the social point of view, the driver who is handicapped must present himself competent in these areas if he is to be granted driving privileges. The first objective therefore would seem to be that of developing attitudes and driving skills compatible with the statement above.

From the personal perspective, the issue is intricately wound around self concept, aspiration, and other rehabilitative considerations. This statement is likely to become personally

[3]Finesilver, S. G., "A Study on Driving Records, Licensing Requirements and Insurability of Physically Imparied Drivers," University of Denver, College of Law, Denver, Colorado-80204, 1970.

meaningful to a teacher of the physically-mentally handicapped who accepts the challenge, meets the challenge, meets the obstacles, and assists individuals toward greater freedom and self development.

PSYCHOLOGICAL FACTORS AFFECTING DRIVING BEHAVIOR IN THE DISABLED

One study of males with spinal cord injuries revealed impulse dominated behavior. In Driver Education of the disabled, it is important to determine whether the patient tends to be an imprudent person. Excessive emotionality that results in rapid fluctuations of need and feeling may also impair performance. Excessive anxiety that results in preoccupation or in inability to make quick decisions with good judgement, in daydreaming inability to sustain attention on the driving task, or profound depression that results in phychomotor retardation or suicidal impulses, are also poor prognastic signs.

The psychological meanings, both conscious and unconscious, of driving are important factors to consider. For example, a person may drive a car to feel a sense of power. In the disabled population, it may serve as a compensation for the experience of loss of power resulting from the diability. This factor makes training the disabled to drive one of the important contributors to improvement in morale. If, however, this compensatory mechanism is excessive, it can become dangerous. In general, studies concerning safe driving have shown that above a certain minimum, driving skills are less important than are attitudes.

THE PSYCHOLOGY OF THE PHYSICALLY HANDICAPPED

Fundamental Human Drives

1. Human beings direct their activities to the satisfaction of biological wants and general physical well-being.
2. Human beings normally behave in ways that will lead them toward a degree of success, mastery, and achievement.
3. Most beings behave in ways that will help them to gain recognition, admiration, respect, and achievement.
4. Humans generally act in ways which will lead toward their being loved, and the realization of a feeling of being wanted.
5. Most persons act in ways that will bring about peace of mind, security, and a feeling of release from worry and anxiety.

6. Human beings indicate by their behavior that they seek some adventure, new experiences, and zestful living.

Mechanisms of Adjustment to the Motivating Drives

1. Trial behavior: most fundamental method.

2. Sublimation: an original response to a desire is replaced by an acquired one which is more possible in the light of the circumstances involved (limited choice of substitutes for handicapped).

3. Compensation: indicates that a handicapped person does not want maudlin sympathy or condescending pity. Often it is because society expects him to do something to atone for his deficiency.

4. Escape Reactions: daydreaming, withdrawn behavior, regressive behavior.

5. Identification: a physically defective child may become attached to and identify himself with a physically normal or superior child. The satisfaction he has learned to derive from vicarious accomplishments may be sufficient to relieve him from the need to try to do things for himself.

6. Projection: attributing to others thoughts, feelings, and attitudes which are our own, but which we may refuse to recognize as belonging to us.

7. Rationalization: we present socially acceptable and therefore good reasons in place of the real reasons to explain our behavior. If environmental demands on an individual were not to exceed his physical and mental capacities, excuses for limitations would not have to be found.

8. Repression: unconscious inhibition of unpleasant memories (memory depression).

9. Fears and Phobias: a fear reaction to a situation which normally should be responded to without fear. Learned reactions.

10. Compulsion Neurosis: obsessive desire or impulse to perform a specific act. Become significant when the inhibition of their performance leaves the individual uncomfortable; when the individual dreads the possibilities of failing to execute the act, and the compulsion becomes serious.

HANDICAPPED CHILDREN IN THE UNITED STATES
AND
SPECIAL EDUCATION PERSONNEL REQUIRED
[ESTIMATED] 1968 - 1969

	[A] HANDICAPPED CHILDREN [5-19 YRS]	[B] HANDICAPPED CHILDREN [0-4 YRS]	[C] CHILDREN CHILDREN [0-19]	[D] HANDICAPPED EDUCATION SERVED 1968-69	[E] SPECIAL EDUCATION TEACHERS 1968-69	[F] ADDITIONAL SPECIAL TEACHERS NEEDED
SPEECH IMPAIRED	2,112,600	327,900	2,440,500	1,122,200	13,700	16,800
EMOTIONALLY DISTURBED	1,207,200	180,800	1,388,000	99,400	11,400	175,800
MENTALLY RETARDED	1,388,300	309,200	1,697,500	703,800	64,600	66,000
LEARNING DISABLED	603,600	93,700	697,300	120,000	9,400	25,500
HARD OF HEARING	301,800	46,800	348,600	44,400	4,000	13,300
DEAF	45,300	7,000	52,300	20,800	4,000	3,500
CRIPPLED & OTHER HEALTH IMPAIRED	301,800	46,800	348,600	109,000	11,000	12,200
VISUALLY IMPAIRED	60,400	9,400	69,800	22,700	3,700	3,300
MULTIHANDICAPPED	35,800	5,100	40,900	9,200	2,200	6,200
TOTALS	6,056,800	1,026,700	7,083,500	2,251,500	124,000	322,600

ESTIMATES COMPILED FROM MULTIPLE STUDIES OF INCIDENCE AND FROM TITLE VI STATE REPORTS. SOURCE MATERIAL AVAILABLE FROM THE OFFICE OF PROGRAM PLANNING AND EVALUATION, BUREAU OF EDUCATION FOR THE HANDICAPPED, U.S. OFFICE OF EDUCATION.

AS OF JULY 1, 1968, THERE WERE APPROXIMATELY 75,000,000 CHILDREN IN THE UNITED STATES BETWEEN THE AGES OF 0-19 YEARS OF WHICH AN ESTIMATED 7,083,500 ARE HANDICAPPED.

II. ORGANIZATION & ADMINISTRATION

A. Reimbursement

As pointed out in *A Guide for Teaching Driver Education in Oklahoma Schools, 1973,* the school may receive reimbursement for funds expended up to $35.00 per pupil completing an approved and accredited Driver Education course. This includes at least thirty (30) hours classroom and six (6) hours behind-the-wheel instruction.

Under the requirements of the State Department of Education the school staff may feel that the handicapped student could be helped by repeating the Driver Education for a second term. Upon certification that the minimum time requirements were met during each enrollment, the school may be reimbursed for that pupil a second time. It must be pointed out, however, that all the requirements for approval must be met with the student each time reimbursement is claimed.

B. Special Equipment

Special text materials for Educable Mentally Handicapped (EMH) students are listed in the bibliography. Some special techniques for assisting the EMH are discussed later in Section III-B. Special hand controls for physcially handicapped drivers can be furnished on a free-loan basis much the same as automobile dealers furnish Driver Education cars.

Specific controls for different types of handicaps are available in chart form from most manufacturers. A physical limitation and driver assist device index appears as Appendix C, *Steps for Teaching the Physically Handicapped,* Southwest Center for Safety, Oklahoma State University, 1970.

If controls are necessary which will require special modification of the car or its normal controls, special arrangements must be made regarding use of a vehicle. Car dealers or companies may be willing to adapt a car for use if they are reasonably sure of selling the car to that person after he has learned to drive it.

For deaf and hard of hearing students, captioned driving simulator films, are available. For additional information, contact the Driving Simulator Manufacturers or Driver Education Section, State Department of Education.

C. Identifying Special Students

The Driver Education teacher is not expected to be an expert as far as identifying special education students is concerned, but if he has a general knowledge of the categories of special education it should help him in planning his class presentations. If the school has

specific Special Education classes, then conferences with the SE teacher can provide help. (It may be necessary to go back to elementary records for I.Q. and achievement scores). If there is counseling and testing services in the school, the students will have been identified. If no identification has been done in the school, students may be referred to local or county guidance centers. If none of the above services are available, the State Department of Education, Special Education Section, should be contacted and a coordinator will visit the school and help with identification.

Special Education students are categorized in the following sections:

Trainable Mentally Retarded	I.Q. 30 to 50 (Not recommended for Driver Education class)
Educable Mentally Handicapped	I.Q. 50 to 75
Emotionally Disturbed	As identified by a psychologist or psychiatrist
Children with Learning Disabilities	Normal intelligence (90 I.Q. or above) with learning problems; often reading several years below grade level.
Various physical handicaps Deaf and Hard-of-Hearing Blind & Partially Seeing Crippled	Medical Evaluation

Although every student is an individual and should be taught with the best techniques of education, some ideas may be of help to the Driver Education teacher. These are general concepts and do not necessarily apply to **all** students in these categories.

The physically handicapped student will need encouragement. He needs to understand that the extra time and effort he must spend will well be worth the ultimate goal: independence through mobility.

The mentally handicapped student needs to be taught the **basic** skills (concrete learning rather than abstract). Instructions need to be worded simply and, specifically, in the actual driving experience, try to limit directions to one thing at a time. Example: At the intersection, turn right, not, turn right at the next corner, accelerate slowly, reach a speed of 30 miles an hour, go two blocks, turn left, etc. (You probably lost him on the word accelerate). His judgement may not be too realistic as to his own ability. Also, they don't always understand cause and effect. The student with learning diabilities

probably will have an academic loss - reading or math.

The emotionally disturbed could, hopefully, be taught (conditioned?) to tolerate pressure and sudden unexpected situations. Students with physical handicaps such as hearing or visual loss could be helped by using common sense.

To the handicapped student, the Driver Education class offers the rare opportunity to be truly successful in an education setting. During the first class period, it is of the utmost importance that students be informed of State laws which provide for special needs; such as special mechanical adaptations on automobiles which make driving feasible for physically handicapped individuals, and oral examinations that can be substituted for written examinations when the drivers license candidate has difficulty with reading. In addition, some of the following items representing the basic instruction, may need to be stressed to some individual students.

(1) Emphasize how much the students already know related to the subject.
(2) To instill a positive attitude by indicating the students will be successful if appropriate effort is extended.
(3) To stress the benefits of having a valid drivers license as it pertains to the following:
    (a) Make it legal
        — avoid unnecessary loss of money due to fines
        — reduce anxiety when driving.
    (b) Improve chances for employment
        — a better job farther away from home.
    (c) Recreational aspect
        — expands the potential for a "complete" life.
    (d) The drivers license is an excellent identification card (ID) for business transactions.
(4) Delineate the different phases of the course.
(5) Explain how and why students are grouped.
(6) Discuss the State Board of Education's regulations.

III. INSTRUCTIONAL PLANNING

Basically there are four tasks that the physically handicapped driver must master over and above the normal requirements for safe operation of an automobile. These four tasks, part A of this chapter,

are listed in the form of behavorial objectives. Along with the objectives are suggested Teaching Techniques, Teacher Activities, and Student Activities for each task. As an additional teacher aid, a complete driving log on a physically handicapped student has been included as part C.

The mentally handicapped student will essentially have to master the same requirements as anyone else for safe operation of an automobile. Their problems are so varied that only through consultation with the student, his parents, and The Special Education Department should the decision be made to enroll the student in Driver Education. If the decision is affirmative, all available agencies and resources must be coordinated if progress is to result. A few techniques for assisting the mentally handicapped are listed in part B of this chapter. Part C is a driving log of a mentally handicapped student.

Objective: The student shall demonstrate his ability to enter the car unassisted; to include any assist devices such as wheel chair, crutches, etc. (In some cases, "unassisted" will be impossible but should be the goal).

Teacher Techniques	Teacher Activities	Student Activities
1. Know strong parts of student's body.	1. Observe student's desire and method of body manipulation.	1. Approach car open passenger door.
2. May need a board for student to "slide" from wheel chair to car seat.	2. Make suggestions before rendering assistance.	2. Transfer to passenger seat.
3. Have student enter from passenger side.	3. Insure assist devices are secure, i.e. use shoulder harness to secure wheel chair if placed in front seat.	3. Transfer assist devices into car and secure.
	4. Insure body position is correct for proper vision and control manipulation.	4. Close and secure car door.
	5. If parapalegic, be sure student's feet are not under foot pedals.	5. Transfer to behind the wheel.

Objective: The student shall demonstrate his ability to exit the car unassisted; include any assist devices such as wheel chair, crutches, etc. (In some cases "unassisted" will be impossible but should be the goal)

Teaching Techniques	Teacher Activities	Student Activities
1. Know strong parts of student's body.	1. Make sure car is secure before student starts exit.	1. Secure car-selector lever in PARK, park brake set.
2. Park car on level surface without a curb.	2. Observe student's method of body manipulation.	2. Open passenger door.
3. Have student exit passenger side of car.	3. Insure that assist devices are properly placed and secure for student transfer from car.	3. Transfer assist devices from car.
	4. Make sure car door does not blow shut during transfer.	4. Transfer from car.
		5. Close car door.

Objective: The student shall demonstrate his ability to operate special controls as needed for his condition.

Teaching Techniques	Teaching Activities	Student Activities
1. Pre-check special controls for dependability and smoothness of operation.	1. Demonstrate operation and use of special controls.	1. Release park brake, set hand (foot) brake, move selector lever to Drive. Release hand brake and allow car to creep slowly forward.
2. Park brake must be released before gear selection is made.	2. Ride with student initially and observe correct usage of hand controls.	2. Repeat item one several times forward and back.
3. Use term "push and pull" for use of brake and accelerator if both on the same control.	3. When backing, have student shift body and look out back window. Make sure car is in Park when shifting body.	3. Demonstrate ability to steer hard left and right.
4. Teach use of brake first. Car will move without acceleration.	4. Watch for fatigue. Stop student frequently and have him rest.	4. Demonstrate ability to set park brake.

Objective: The student shall demonstrate his ability to maintain proper position and balance behind the wheel while the car is in motion.

Teaching Techniques	Teaching Activities	Student Activities
1. Use a wide seat cushion or pillow.	1. Observe body balance during turns.	1. Shift body weight toward driver's door.
2. During right turns, body will tend to shift toward passenger's seat.	2. Observe if adequate strength is available to steer properly.	2. Rest left elbow on door arm rest. It should stay there during most normal driving.
3. A right arm rest may be desirable in some cases for additional balance.	3. Observe steering judgement at same time. Have student steer between cones.	3. If student becomes "unbalanced" he should stop and make corrections.
		4. Make hard right and left turns while going forward to check for balance.

B. Techniques for Assisting the Mentally Handicapped.

1. Interview with Special Education teacher and/or parents to obtain as much information as possible about student's interests, hobbies, etc. Also get the feeling of Special Education teacher and parents about this student learning to drive.
2. Seek assistance from Special Education Department and parents in mastering the knowledge required for safe operation of automobile.
3. In most cases, have student obtain restricted license before starting practice driving. There may be a few cases where some practice driving might be used to motivate the student to obtain the restricted license.
4. Watch for regression. Mentally handicapped students are usually quite sensitive and often respond negatively to harsh criticism. As with any student, they should be encouraged and complimented whenever possible.
5. Determine student's traffic comprehension level early. This can be done by having student ride with the instructor and identify signs, traffic patterns, hazards, etc.
6. The mentally handicapped student's attention span is usually quite short. This has a bearing whether working on mental or physical tasks or combination thereof.

Driving Log
Suzie, age 22, (paraplegic)

June 15 — Interviewed Suzie for first time. Attempted to learn as much as possible about her handicap to include strong parts of her body.

June 17 — Talked to her doctor to inform him of what we were going to do and see if he knew of any mental or vision problems that may interfere with Suzie learning to drive.

June 18 — Ordered hand controls.

June 26 — Hand controls arrived.

July 2 — Sue got her restricted license.

July 6 — Hand controls installed (specifically picked a 2-door car so Sue could get her wheel chair in behind her easier).

July 7 — Suzie's first lesson 3-4 p.m.

1. I drove the car using the hand controls as she watched. At a slow speed (10 MPH) I demonstrated that the hand brake would slide all four wheels.
2. Sue got under the wheel. By using pillows we adjusted her body until she could see properly.
3. By standing outside the driver's side (door open) I had Sue operate all of the controls (When raised on pillows you need to watch that the steering wheel does not hit their legs). (Tilt steering wheel next time.)
4. Starting procedure has to be modified in that she must release the parking brake before moving the selector lever. She cannot hold the hand brake and release the parking brake at the same time with her left hand. If she tries with the car in gear, it will roll.
5. A very important factor is that she try not to shift her body unless the car is in park. Sue tried this with her left hand on the hand control. As she shifted her body, she applied pressure with her left hand which caused the accelerator and brake to be applied at the same time.
6. Once she had the seat, seat belt/shoulder harness, and mirror adjusted, I had Sue release the

park brake, depress the hand brake, move the selector lever to Drive (the engine was started). I purposely picked a level place so that the car would move without acceleration. By releasing tension on the hand control (releasing the foot brake) the car moved forward. Pressing down (away) on the hand control, the car stopped. We did this approximately five times forward, then several times backward.

7. By the end of the period, Sue had driven around the outside of the range both ways (right and left turns) several times. There was no other activity on the range at that time. Sue's left hand is not developed as well as her right. Recommended that she exercise her left hand to increase strength. There is ample strength to do the required work, but it may get tiring after several hours of driving. Exercise will also help with coordination on the hand control.

8. With paraplegics it is important that they do not get their feet under the brake or accelerator pedals.

9. The student also needs to keep left elbow on door arm rest for balance.

July 8 — Suzie's second lesson.

Most of the hour was spent adjusting to the controls. She did much better using her left thumb in manipulating turn signals. She pushed up for right signal much easier than pulling down for turning left. More thought will need to be given to this phase, especially at higher speeds. Suzie is learning to handle the controls; accelerator and brakes much better. Her speed was about 5 miles per hour. Most improvement seemed to be in her handling of the wheel as she steered where she planned to go and did not lose control.

July 9 — Suzie's third lesson.

Rode first round with Sue making left turns. Got out of the car and let her go twice by herself. Set up three cones spaced 24 feet apart on center of road and had her weave through them. Good exercise for complete control of car. When Sue went "around the block" she made a right turn too sharp and rode up

on the curb. When she felt this, it seemed to excite her a little as she applied the throttle instead of the brake. She immediately realized what she had done and released the throttle. It was nearly an instantaneous reaction. Speeds are still under 10 MPH.

July 10 — Suzie's fourth lesson.
More practice on right and left turns. Set up three cones 24 feet apart in center of road and had her practice steering between them. Introduced her to "T" exercise. Speeds still under 10 MPH. Just before returning car to parking lot, had Sue drive through skid pan area to experience greater acceleration and braking. Felt she may have gone a little faster than she had control.

July 13 — Suzie's fifth lesson.
Sue drove outside the driving range today for the first time. Sue drove on the gravel road east of the range. She handled the car well. She made a turnabout and two U-turns. Her spped ranged from 8 to 30 MPH. Her adjustment to the turn signal is better. On the range Sue practiced going forwards and backwards on the "T". Her speed was about 5 MPH. She stopped even with the flags but had difficulty backing so that the flag was in the middle of the bumper. This, I think, was partly due to the fact that the car has two grooves down the back and she was following one of them. She also worked on the figure "8" for a short time. Her difficulty here was in turning too short. She was correcting this when it was time to return to the main campus.

July 14 — Suzie's sixth lesson.
Suzie worked on the gravel road east and southeast of the range for about 20 minutes. She was handling the car well at speeds up to 30 MPH even though the road was rough. She is progressing in handling the accelerator and brakes. She learned to stop for the car on the right at the intersection of Garfield and the gravel road. She also stopped for a truck at the south entrance of the east gravel road. The rest of the hour was spent on the "T" and on the Figure "8". She is staying between the yellow lines of the

"8" a little better. It will take more practice here. She also is judging distance from the red flags on the "T" a little closer. She is coming along nicely and will soon be ready for the streets.

July 15 — Suzie's seventh lesson.
Suzie drove entirely on the street today. The most critical point was crossing 6th street at Western. She waited until there was plenty of room then crossed quite rapidly. She is not maintaining good control on her turns. Seems to just let the car roll through the turns. Ran up on one curb on a right turn. Need to work on speed control. Fluctuates a lot.

July 16 — Suzie's eighth lesson.
Suzie drove off the range today. She went west on McElroy. It had rained the night before and the gravel part of the street was very bumpy. She slowed the car to a speed that the bumps were barely noticeable. Here she drove at about 10 MPH. She turned around at the dairy and went east. On the paved street she drove at the posted speed limits. These were mostly 35 MPH. She handled the mechanisms well. She knew the speed limits when asked what they were. Suzie was having a little difficulty knowing whose turn it was to go at intersections and perceiving how far a car was away so she waited a few times when she could have safely moved on across the intersection. This should improve as she drives more. She is doing very well.

July 17 — Suzie's ninth lesson.
Dr. Biggerstaff, Head of the Department of Education and Dr. Bob Brown of that department, road out to the range and back with Suzie. I am sure the passengers made her a little nervous but she didn't do too badly. Making the left turn onto McElroy off Garfield she accelerated too much during the turn. The remainder of the period she practiced by herself on the range.

July 20 — Suzie's tenth lesson.
Suzie drove entirely on the range today. I had each

of the seven workshop participants ride for a few minutes to get acquainted. Introduced Suzie to up and down hill parking. The remainder of the week she will drive on the street with the workshop participants.

July 21 — Suzie's eleventh lesson. (10:30 — 11:40 —)
Today Suzie was to drive on McElroy and Perkins streets. Objectives included: meeting on-coming traffic, 4-way stop signs, traffic signals, 4-lane traffic, and highway driving. Suzie is still very cautious about crossing in front of on-coming traffic. She was nervous at first about driving 45-60 MPH. She adjusted quickly to all of these objectives and did a good job. When returning to the office, Suzie had to use a crowded parking lot with busy traffic to turn around and approach the parking place. She did an excellent job. In parking, she asked me to talk her into the parallel parking space as she had no previous experience in this area.

July 21 — Suzie's twelfth lesson. (2:00 - 3:00)
Suzie drove downtown. She was nervous of all the activity at first, but soon settled down. We worked on intersection observation, and angle parking. Suzie has very quick reaction time and controls the car well in an emergency situation. She drives to the right of her lane most of the time, but was aware of this problem and tried to improve. Signaling for quick lane changing or signaling while applying or holding the brake presented difficulty. She needs more work on checking blind spots when changing lanes. She caught on quite well to the angle park, but had trouble remembering which way to turn the wheel; some more work in backing would be helpful, we didn't have time to work on backing at this time.

July 22 — Suzie's thirteenth and fourteenth lessons
Suzie: 1:40 p.m. — Suzie was late. Got stuck in a third floor elevator breakdown. Suzie's driving included west on Oklahoma State Highway 51 to Interstate 35. She drove down I-35 to Mulhall Road and returned on I-35 to Oklahoma State 51 severa

times. One block north of Quonset No. 5, Suzie made a left turn from the inside lane to the outside lane. (4-lane street). Her speed on Oklahoma 51 was 50-60 MPH. She noted another car passing on a hill crossing a yellow line. Her entrance to I-35 was good. Her exit at I-35 and Mulhall Road was very good. She tends to slow too soon on the exits on the first and second time. Later, she was better. During highway driving we covered such questions as: What to do in case of a blow-out? What to do in case of loose gravel? (some loose gravel was on the road.) How to enter and exit freeways? What were the road signs? How to drive in the center of the lane? Suzie's right arm tired. In the future she will need to work on passing cars on the highway. She needs practice on left turns as off W. 6th Street. She finished at about 3:00 p.m. at the Quonset.

July 23 — Suzie's fifteenth lesson. (10:30 — 11:30)
We left the Safety Center and proceeded to the down town area where we practiced angle parking. Suzie did real well at this. Once in awhile she would fail to turn her wheels short enough when she backed out, the result was she would place the back of the car in the other lane of traffic. I pointed this out to her and afterwards she did better. Due to "Crazy Day" the downtown area was extremely congested so parking places were hard to find. We drove east on 6th Street and practiced lane changing. She did this well except she had to slow down when she moved the signal lever. She needs an extension on the lever. Suzie has the habit of going too fast up to the point where she intends to stop. I cautioned her about this. She has very good reflexes as she demonstrated when someone would drive out in front of her. Her distance judgment was good as things were congested while we were in the downtown area. Her greatest fault was excessive speed. She drives too fast in areas of heavy traffic.

July 23 — Suzie's sixteenth lesson (2:00 — 3:00)
We drove around town and out on the highway. I let her drive where she wanted to. I noticed when Suzie

makes her right turn whe swings into the left lane before she made her turn. Suzie needs to slow down a little more before she makes her turn. I think she did a fine job on the highway. Her speed was good, her place in the lane was good.

July 24 — Suzie's seventeenth lesson. (10:30 — 11:30)
Suzie drove to University Square. On the way she made a square left turn at a light. Then we stopped and I drew a diagram of how to turn. We made several more left turns and she had few problems. At University Square, she angle parked three times. After she began to focus her eyes in the direction of the center of the parking place, she had little trouble. She was unsure of when to back out if there was traffic anywhere nearby. She is very cautious. Then she parallel parked. This was accomplished quite well. I suggest she practice steering for parking while stopped. Speed was no problem today with her. She turned the corners at the right speed. She drove about the speed limit on the streets. We were mostly in the residential area. She complained that with the seat forward she couldn't use the emergency brake.

July 24 — Suzie's eighteenth lesson. (2:00 — 3:00)
We left the Center proceeded to the downtown area where we angle parked a few times. I asked her where she thought she needed the most practice. She said left turns. So we finished out the hour making left turns off side streets into 6th Street. She was a little rough, cut the ends off the yellow lines a few times. After slowing down she was able to use her reference points and execute the turns better. She had a little trouble judging cars approaching from the right and left but this will come about after a little experience.

July 28 — Suzie's nineteenth lesson.
Suzie drove out highway 51 toward Lake Carl Blackwell. She centers the car well in her lane. She needs to work on holding a constant speed. Returned to Stillwater and drove in residential areas.

July 29 — Suzie's twentieth lesson.
We drove to the range and spent most of the hour practicing parallel parking, turn-abouts, and up and down hill parking.

July 30 — Suzie's twenty-first lesson.
I took the car to Suzie's apartment to have her practice getting her wheel chair in behind her. She got it in and out of the front seat with no difficulty. It's important she enter from the passenger's side, and secure the chair with the shoulder strap so it can't roll against her while she is driving. We drove only a short time as she was packing to go hime for the summer. Suzie has been admitted to graduate school and will be returning August 15th. At that time she will take her license exam.

Sept. 10 — Suzie successfully passed her license exam.

Driving Log of
Johny

March 30	Met Johny at High School with Special Education Teacher. We talked for about 40 minutes and decided on meeting days and times.
April 1	The Instructor brought Johny from his noon job at the Union (bus-boy) to our office so he would know for sure exactly where to meet on Tuesday and Thursday at 2 p.m.
April 6 Lesson 1	Johny was a few minutes early and indicated that he had jogged from the Union. We went to the range. I let him sit behind the wheel and we reviewed the instrument panel which he knew quite well. We went through adjusting the seat, mirror, seat belts and shoulder harness. I wrote the three steps on a tablet but I don't think this helped much. We went through "securing the car" several times. Before the period was over, Johny was drigin counter-clockwise (left turns) around the outside of the range without me in the car.
April 8 Lesson 2	Introduced Johny to "T" and figure "8" exercises. He does real well maneuvering the car at slow speeds. We need to start preparing for the written exam.
April 15 Lesson 3	Introduced Johny to up and down-hill park. He does real well. He worked on "T" and figure "8" exercises. I have him a Driver's Manual. His mother and younger sister (9th grade) are going to help him study. I need to get a copy of Bonner's Basic Driver Education Workbook for EMH for him.
April 20 Lesson 4	Began lesson by reviewing previous lessons and exercises. Explained and demonstrated "X" exercise. After third or fourth time through exercise Johny was able to do the exercise perfectly. Student responded best when in the car by himself.
April 22 Lesson 5	Introduced Johny to "Y" Turnabout. I demonstrated it to him a couple of times after drawing it out on blackboard. He completed the turnabout without a hitch on the first try but had trouble remembering to signal. Reviewed up and down hill park and he did them real well. Seemed to be nervous because I was riding with him.

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April 27
Lesson 6 — Took Johny through tire blow-out and skid pan exercises. He handled the tire blow-out fine. He knew what needed to be done on the skid pan but was a little slow. He steered correctly and could keep the car from "spinning out." The remainder of the hour he practiced on the skill exercises.

April 29
Lesson 7 — Worked on sign identification. Did not drive.

May 4
Lesson 8 — Worked in classroom. Did not drive. Obtained Special Education Driver Education Workbook.

May 6
Lesson 9 — Worked in classroom. Did not drive. Johny can describe words that are spoken to him but has trouble identifying the printed work.

May 11
Lesson 10 — Read a few of the study questions to Johny. He can understand them fairly well when read to him. Will continue to use study guide questions.

May 13
Lesson 11 — Johny and I mastered short lesson in the workbook. We reviewed the words and talked about their meanings. I had Johny write words from the lesson. I spelled them, he wrote them on the board then tried to tell me what the word was. He remembered some of the words but it was hard to tell whether he knew them or had memorized them. Reviewed test questions — he knew them all! Johny asked me for a list of the words from Chapter 1 so I gave him one.

May 18 & 20
Lesson 12 — Spent with word mastery from Chapter 1.

May 25 & 27
Lesson 13 — Johny's father died and he didn't show up this week.

June 1
Lesson 14 — Johny came in to see us and wants to continue with his driving lessons.

June 3
Lesson 15 — Worked with Johny on his flash cards and we rode in traffic for road sign identification. We have assigned a total of 57 words from Chapter 1 of *The Basic Driver Education Text.*

June 10
Lesson 16 — Worked on Flash Cards and had Johny ride and read road signs. He is improving. He is getting faster in reading the speed limit signs.

June 18
Lesson 17

Have had heavy rains. Johny is busy mowing lawns. He isn't getting here regularly. Worked on flash cards and read from *Basic Driver Education.*

June 24
Lesson 18

Had johny take his license exam orally. He scored 65 and needed 70. I felt he did real well and can pass the test with a little more work.

July 1
Lesson 19

Studied with Johny from Oklahoma Driver's Manual for approximately one hour.

July 2
Lesson 20

Took License exam orally. Only scored 60 this time. Have to wait 2 weeks before we try it again.

July 13
Lesson 21

Studied with Johny from Curriculum Guide for Special Education Students. (It has traffic situation diagrams with questions.)

July 15
Lesson 22

Studied from Oklahoma Drivers Manual. Made a list of 18 items for Johny to study that evening.

July 16
Lesson 23

Studied with Johny from list and Driver's Manual for approximately one hour. Then took the test. He Passed with a score of 80 and has his Restricted license. I drove the car from the testing station to our motor pool to repair the turn signal. Johny drove home from there.

July 20
Lesson 24

Johny proceeded to Lake Carl Blackwell on H.W. 51 from the Poultry Science Building. He was very cautious to begin and eventually became accustomed to driving.

When we started on the H.W. he wanted to drive at approximately 25-30 M.P.H. I had him accelerate up to 45-50 M.P.H. but he had difficulty maintaining this speed. His speed was variable going up and down hills.

He had the opportunity to perform smooth stops, quick stops and starting on a hill. He did reasonably well on all of these.

The more we drove the more accomplished he became at maintaining his speed. Johny still has the tendency to ride close to the right side of his lane. I feel with a little more driving experience he will be able to accomplish the above mentioned skills of maintaining speed and keeping his car properly aligned in his lane.

July 21
Lesson 25

We started with Johny at about 9:00. Our first stop was at the motor pool to get gas and clear the windshield. Johny started out very cautious, he failed to signal early enough but he remembered with a little hint. His braking and lane centering was very good at this time. We proceeded to a residential area and reviewed up hill and down hill parking procedure with him. Then we told him to do it himself. He did real well, he did forget which side to check when leaving on down hill. His uphill was all right but we had to correct where he was parking, (in front of a drive way.) Johny was hesitant in maintaining the speed limit and the longer we went he would drive close to the right side of the road.

July 22
Lesson 26

I started with Johny from the Safety Building. Johny remembered the starting procedure. Given a chance to make his own choice, as which route to take, he was hesitant.

We were to practice up hill, down hill, and parallel parking. After the first try, on each type of parking, Johny did very well.

Johny made the statement, "I am shook up, because you are a new teacher." Later he seemed to calm down and drive very well.

Johny almost always drove at the speed limit.

July 26
Lesson 27

Drive on Highway, (2 lanes) with Johny from Stillwater to Yale. He needs to work on lane changes at higher speeds and watch speed fluctuation. At one time he was going over the speed limit. We need to drive on the expressway next. We drove for the full hour at higher speeds. I was looking for physical tiring and inattention. He said he was a little tired but seemed to keep his attention focused on the driving task quite well.

July 27
Lesson 28

Had Johny practice parallel parking in a residential area. He did real well, Johny seems much less secure after driving with different instructors last week. He does not seem as sure about his decisions. It could be that the other instructors were helping him too much.

July 28
Lesson 29 — Worked on up and down hill parking. Johny had quite a time. He seemed to have forgotten how to do it. I know he had it mastered at one time on the range. He still is being very cautious at intersections.

July 30
Lesson 30 — Had Johny drive on range and practice up and down hill park. All driving in residential area.

August 3
Lesson 31 — Worked on up and down hill parking, turn-about, and parallel park. All driving in residential area.

August 16
Lesson 32 — Johny did real well after 1-1/2 week lay-off. We worked in residential area on up and down hill park and turn-about. Also drove at higher speeds (50). Will try to take exam on Thursday August 19.

August 17
Lesson 33 — Drove on unmarked country roads then in town to practice lanes changes. He had to be reminded of the steps in the lane changes. His speed fluctuation needed improvement.

August 19
Lesson 34 — Had Johny try the driving exam. He did not pass but the examiner sounded positive. We will try again next week. His biggest mistake was pulling in front of an on-coming car when leaving the up hill park position. Johny did not seem too upset that he had not passed.

August 26
Lesson 35 — Johny PASSED HIS DRIVING EXAM! We practiced a little before taking the exam. Johny was supposed to be in school and indicated that his Aunt was mad at him. I was afraid that he would be to upset to do very well on the exam. I have his younger sister (16), mother, and aunt scheduled to come in this afternoon. I would like to have one of them ride with Johny for awhile to help him.

IV. EVALUATION

Once the handicapped student has successfully obtained his license the Driver Education Instructor has two important tasks yet to complete.

1. **Conference with parents or guardian.** During this conference it should be made very clear to the student and his parents any weaknesses or limitations that need further attention and/or close supervision. It is usually a good idea to recommend that the parents ride with the student for a period of time. The instructor may want the parent(s) to ride during a lesson to enhance the parent's confidence in the student's ability.
2. **Follow-up.** The driver education instructor should periodically check with the student to see if any driving difficulties have developed. A check at 3 months, 6 months, 9 months and 1 year can possibly reveal a deficiency or possible regression that might require some retraining. A good follow-up can also provide helpful hints for helping similar students in the future.

V. Bibliography

Aaron, James E., **Driver Education for The Handicapped, A Resource Curriculum in Driver Education Teacher Preparation,** Safety Center, Southern Illinois University, September, 1971.

Anderson, Meta Louise, **Education of Defectives in the Public Schools** with an introduction by Henry H. Goddard. New York: World Book Company, 1971.

Automotive Safety Foundation, (Now Highway Users Federation), **A Resource Curriculum in Driver and Traffic Safety Education,** 1776 Massachusetts Avenue, N.W. Washington, D.C., 20036, January, 1970.

Bonner, J., Gutshall, R., and Kenel, F., **Basic Driver Education,** Danville, Illinois: The Interstate Printers and Publishers, Inc., Special Education Publications, 1966.

Brody, Leon, "Driver Education for the Handicapped," (a speech at the 1964 National Safety Congress). Reprinted in Transaction, Vol. 23, (November, 1964), p. 70-71.

Finesilver, S. G., "A Study on Driving Records, Licensing Requirements and Insurability of Physically Impaired Driver," University of Denver, College of Law, Denver, Colorado, 80204, 1970.

"Guide for Teaching Driver Education in Oklahoma Schools," Published by Oklahoma State Board of Education, Oklahoma City, Oklahoma, 1973.

Grant, Bruce, **Know Your Car and How to Drive, Hints and Tips to Stay Alive,** Chicago: Rand McNally and Company, 1962.

Gutshall, Robert W., "Can He Be Taught to Drive?" **Safety Education** November, 1963, p. 12-14.

Gutshall, Robert W., "The Handicapped Student and the Automobile," **Traffic Safety** (January, 1962).

"Handicapped Accident Victim Promotes Traffic Safety." **Traffic Safety** (August, 1963), p. 21, 36-37.

"Handicapped To Benefit from Naugatuck Valley Project," **Traffic Safety** (January, 1973), p. 21.

"The Handicapped Can Drive," A slide-sound presentation, Southwest Center for Safety, Stillwater, Oklahoma, 1972.

Kelly, Patrick, **Building Safe Driving Skills,** Belmont, California: Fearon Publishers, Lear Siegler, Inc., Education Division, 1972.

Mass, Roger, "Safety Tips for the Hearing Handicapped Driver and Worker." **The Belltone Magazine** (Summer - 1968), p. 12-13.

"Medical Guide for Physicians in Determining Fitness to Drive Motor Vehicle", **Traffic Safety** (June, 1965), p. 42.

McPherson, Kenard, "Perception of Traffic Hazards a Comparative Study." **Traffic Safety Research Review** (June, 1968), p. 46-49.

National Safety Council, **Accident and Exceptionality**, 1967-68, Vol. 9, No. 1, Chicago, Illinois.

Reynolds, Joseph, "Physically Handicapped and Driver Education." **Safety Education** (May-June, 1967), p. 4.

Rhoads, Milton D., and Matthews, Paul. "A New Dimension to Mobility," **Highway User**, November, 1971.

Rhoads, Milton D., **Handicapped and the Driving Task**, a paper presented to 1973 National Congress of the Society of Automotive Engineers, Warren, Michigan, May 14-18, 1973.

Rhoads, Milton D., et. al., **Steps For Teaching The Physically Handicapped To Drive**, Southwest Center for Safety, Oklahoma State University, Stillwater, Oklahoma, July, 1970.

Schwerhert, Harry A. Jr., "Transportation for the Disabled," **Paraplegic News**, January, 1970.

Stark, Edward S., **Special Education; A Curriculum Guide.** Compiled and edited by Edward S. Stark, with a forword by Leon Charney. Illinois: C. C. Thomas, 1964.

"Study Transportation Needs of Physically Handicapped," **Traffic Safety** (July, 1968), p. 6.

Thomas, Charles C., "Transportation Needs of The Handicapped," Abt Associates, Inc., Cambridge, Massachusetts, 1964.

Tyan, John S., "Some of Our Best Drivers Are Handicapped," **Connecticut Department of Motor Vehicles.** Hartford, Connecticut, 1962, p. 8.

Waller, Julian, "Identification of Persons with Medical Handicaps to Driving." **American Association M V Administrators.** (1967), 36 pp.

Warren, Alice, "Have Wheels Will Travel." **Safety Education** (April, 1963), p. 18-19.

Wohl, Harry D., "ICC Considers Licensing of Handicapped," **Transport Topics** (April, 1964), p. 37.

Special Driver Education Text Material

Bonner, J., Gutshall, R. and Kenel, F., **Basic Driver Education**, Danville, Illinois: The Interstate Printers and Publishers, Inc., Special Education Publications, 1966.

Grant, Bruce, **Know Your Car and How to Drive, Hints and Tips to Stay Alive**, Chicago: Rand McNally and Co., 1962.

Kelly, Patrick, **Building Safe Driving Skills**, Belmont, California: Fearon Publishers, Lear Siegler, Inc., Education Division, 1972.

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